

Winnebago Energy Center, LLC

Winnebago Energy Center, LLC

1716 Lawrence Drive
De Pere, WI 54115

January 11, 2010

Mr. Joseph Ulfing
U.S. Environmental Protection Agency
Region 5
77 West Jackson Blvd.
Chicago IL 60604-3590



Re: Notice and Finding of Violation EPA-5-10-06-IL

Dear Joseph,

Thank you for taking the time to meet with us on Tuesday, November 30, 2011, to discuss the U.S. Environmental Protection Agency's current position on the above referenced NOV/FOV. As requested during the meeting, Winnebago Energy Center, LLC (WEC) is providing additional information on a proposed sampling plan to monitor total reduced sulfur concentrations in the landfill gas being combusted at the facility. Additionally, WEC is providing information regarding the availability of the gas treatment systems (i.e., the landfill gas (LFG) control devices at the facility) and information on WEC's maintenance practices on the facility engines.

Landfill Gas Monitoring

As discussed during the meeting, WEC submitted an application to revise the sulfur dioxide emission limitations in the construction permit to address the higher than anticipated total reduced sulfur (TRS) concentrations in the landfill gas being combusted at the facility. The application for a permit revision assumes a maximum TRS concentration of 8,000 parts per million by volume (ppmv). Currently, samples of the landfill gas are being collected and analyzed on a monthly basis. WEC is committing to the following LFG sampling frequency:

- When TRS concentrations are less than 2,000 ppmv, samples will be collected and analyzed at least quarterly. When the TRS concentration is greater than 2,000 ppmv, but less than 6,000 ppmv, samples will be collected and analyzed on a monthly basis.
- When TRS concentrations are determined to be greater than 6,000 ppmv, but less than 7,500 ppmv, sampling will be conducted weekly.

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- If a landfill gas sample result indicates the TRS concentration is above 7,500 ppmv, WEC will shut the operating units down until TRS concentrations are determined to be less than 7,500 ppmv through the analysis of two consecutive samples collected no less than 24 hours apart.

The increased sample frequency will be continued until 2 consecutive samples indicate the TRS concentration has dropped below the threshold values listed.

Treatment System Availability

The New Source Performance Standard (NSPS) for Municipal Solid Waste Landfills, as found in 40 CFR § 60.752(b)(2)(iii), requires that collected LFG must be routed to a *control system* that complies with the requirements of either 40 CFR § 60.752(b)(2)(iii)(A), (B), or (C). WEC has two gas treatment systems that treat the LFG prior to delivery to the WEC engines for combustion and meet the control system requirements in 40 CFR § 60.752(b)(2)(iii)(C). The use of the landfill gas generated at the Winnebago Landfill as a renewable energy source via the WEC engines is more environmentally beneficial than directing it to the William Charles operated flares. While the WEC engines have experienced multiple unplanned shutdowns, the gas treatment systems at the facility have a greater than 98% availability factor.

Engine Maintenance and Reliability

During the meeting you expressed concerns about the excessive number of down time events for the WEC engines. Given the low quality and the impurities inherent in the LFG and the number of moving parts and electrical components necessary to operate an electric generating facility, it is not possible to avoid all unplanned down time events. WEC has developed a proactive maintenance program to reduce engine downtime and has increased maintenance practices as the quality of the fuel has decreased. The most dramatic change has been oil changes. When the facility was first constructed gas quality was better, and WEC was performing routine oil changes approximately every 1,000 operating hours. By early 2010 the frequency was increased to approximately once per month (roughly every 750 operating hours). As fuel quality has continued to deteriorate over the year, WEC is currently performing oil changes on engines 3, 4, and 5 every 10 to 14 days.

In addition to oil changes, WEC conducts the following activities as part of the maintenance program for the facility:

- Weekly oil sampling and analysis.

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- Change engine spark plugs every 1,000 operating hours.
- Check and adjust engine components every 2,000 hours.
- Perform engine overhauls every 8,000 hours (or as needed).
- Perform major engine overhauls every 24,000 hours (or as needed).
- Perform preventative maintenance on the cooling system every 8,000 hours.
- Inspect and replace belts on gas treatment systems every 2,000 operating hours.
- Check and adjust gas treatment systems components every 8,000 hours.
- Inspect and adjust electrical switchgear for plant every 8,000 hours.

The above listed maintenance practices are performed per the schedule indicated or as needed based upon engine operating conditions. Fuel quality directly affects operation of the engine and maintenance intervals as evidenced by the increased oil change interval. WEC recently contracted with a new operation and maintenance provider that has more experience and expertise to operate a LFG to energy facility in relation to the previous provider. We believe this change along with optimizing maintenance intervals will contribute to improved unit availability and reliability.

If you have any questions, feel free to contact Mr. Mark Metcalf at (920) 433-1833 or (920) 617-6046.

Sincerely,



Joel H. Jansen

Vice President

Winnebago Energy Center, LLC